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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/701,040 | 11/04/2003 | William J. Begley | 86828AEK | 6165 |
| 7590 | 07/13/2005 | | EXAMINER | |
| | | | GARRETT, DAWN L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1774 | |

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/701,040 | BEGLEY ET AL. | |
| | Examiner | Art Unit | |
| | Dawn Garrett | 1774 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 April 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6,8-18 and 20-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6,8-12,15-18 and 21-31 is/are rejected.
 7) Claim(s) 13,14 and 20 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 04 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4-4-2005</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment dated April 7, 2005. Claims 1, 10, 11, 13-16, and 20-22 were amended. Claims 30 and 31 were added. Claims 7 and 19 are canceled. Claims 1-6, 8-18, and 20-31 are pending.
2. The objection to claim 19 previously set forth in the Office action mailed January 4, 2005, paragraph 1, is withdrawn due to the cancellation of claim 19.
3. The objection to claim 20 set forth in the Office action mailed January 4, 2005, paragraph 2, is withdrawn due to the amendment.
4. The rejection of claim 20 under 35 U.S.C. 112, second paragraph, set forth in the Office action mailed January 4, 2005, paragraph 4, is withdrawn due to the amendment.
5. The rejection of claims 1, 5-9, and 13-29 under 35 U.S.C. 103(a) as being unpatentable over Sugano et al. (JP 2002-097465) set forth in the Office action mailed January 4, 2005, paragraph 6, is withdrawn due to the cancellation of claims 7 and 19 and the amendment of claim 1 to limit the derivative to formula II.
6. The rejection of claims 2, 3, 10, and 11 under 35 U.S.C. 103(a) as being unpatentable over Sugano et al. (JP 2002-097465) in view of Kido et al. (Applied Physics Letters, Vol. 64, No. 7, 14 February 1994, pages 815-817) is withdrawn due to the amendment of claim 1.
7. The rejection of claims 4 and 12 under 35 U.S.C. 103(a) as being unpatentable over Sugano et al. (JP 2002-097465) in view of Jones (US 5,920,080) is withdrawn due to the amendment of claim 1.

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8. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugano et al. (JP 2002-097465). Sugano et al. discloses naphthacene derivatives as dopants in luminescent layers of organic electroluminescent devices (see abstract). The naphthacene derivatives 150, 152, and 154 (see par 46) as well as 220, 222, and 224 (see par. 59) read upon instant formula (I). The naphthacene derivatives are contained in a host in an amount of 0.001% to 50% by weight (see par. 65). Although Sugano et al. does not show specific formulas in the tables according to formulas (II) and (III), it would have been obvious to one of ordinary skill in the art to have formed compounds according to these formulas, because Sugano et al. teaches all the required substituents (see par. 11). In addition, Sugano et al. does not show formulas 150, 152, 154, 220, 222, and 224 in an example where a device is formed using these specific compounds; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to have selected these compounds for the luminescent layer of a device, because Sugano et al. clearly teaches these compounds as luminescent materials for a luminescent layer. Sugano et al. discloses the host may comprise an amine compound (see par. 66) including alpha-NPD (see examples). Since Sugano et al. teaches naphthacene derivatives according to formula 1, the property limitations of claims 30 and 31 are deemed to be inherently met by the Sugano et al. naphthacene derivatives. Sugano et al. teaches the EL component is used for a flat light source or a display (see par. 1).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-6, 8-12, 15-18, and 21-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-10, 12-14, 21-32, and 36-38 of copending Application No. 10/700,894. Although the conflicting claims are not identical, they are not patentably distinct from each other because the naphthacene derivatives of '894 are overlapping with the naphthacene derivative set forth in the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 1-6, 8-12, 15-18, and 21-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 28-33 of copending Application No. 10/700,916. Although the conflicting claims are not identical, they are not patentably distinct from each other because Inv-7 of '916 is within the definition of naphthacene formula(s) of the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1-6, 30 and 31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 33-37 of

copending Application No. 10/701,241. Although the conflicting claims are not identical, they are not patentably distinct from each other because a thio group of '241 may be a heterocyclic group.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1, 29 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 27, and 35-37 of copending Application No. 10/973,078. Although the conflicting claims are not identical, they are not patentably distinct from each other because the "Inv" formulas of '078 are within the formula set forth in the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

14. Claims 1-6, 8-18 and 20-29 contain allowable subject matter. The closest prior art is considered to be Sugano et al. (JP 2002-097465) and Fujita et al. (US 6,399,223). Sugano et al. discloses naphthacene derivatives as dopants in luminescent layers of electroluminescent devices (see abstract). Sugano et al. teaches that the naphthacene derivative should have at least seven substituents. Formula II of claim 1 is only substituted at six carbons of the naphthacene skeleton. Fujita et al. also teaches naphthacene derivatives for a luminescent layer of an electroluminescent device. Fujita et al. fails to show specific compounds according to the very specifically substituted naphthacene derivatives of formula II of claim 1. Furthermore, the comparative data of the present application demonstrates superior results when the very specifically substituted

naphthacene derivatives are compared to naphthacene derivatives lacking aromatic carbocyclic or heterocyclic group substituents at the 2- and 8-positions of the Formula (II) compound.

Claims 13, 14 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments filed April 7, 2005 have been fully considered but they are not persuasive.

Claims 30 and 31 under rejection are substantially the same as the combination of claims 1, 25 and 26 previously rejected. Claim 30 allows for the naphthacene derivative to be substituted at locations of the naphthacene skeleton other than the 2, 5, 6, 8, 11 and 12 positions. Accordingly, a rejection over Sugano et al. has been made.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dawn Garrett
Dawn Garrett
Primary Examiner
Art Unit 1774

D.G.
July 1, 2005